SP22	1	MASKRALVILAKGAEEMETVIPVDIMRRAGIK <u>VTVAGLAGKDPVQCSR</u> DV	50
DJ-1	1	$\label{eq:maskralvilakgaeemetvipvdvmragik} \underline{\text{VTVAGLagkdpvocsr}} \text{DV}$ $\text{Peptide 1}$	50
SP22	51	VICPDTSLEEAKTQGPYDVVVLPGGNLGAQNLSESALVK <u>EILK</u> EQENRKG	100
DJ-1	51	VICPDASLEDAKKEGPYDVVVLPGGNLGAQNLSESAAVK <u>EILK</u> EQENRKG Peptide 2	100
		-	
SP22	101	LIAAICAGPTALLAHEVGFGCKV <u>TSHPLAK</u> DKMMNGSHYSYSESRVEKD	149
DJ-1	101	LIAAICAGPTALLAHEIGCGSKV <u>TTHPLAK</u> DKMMNGGHYTYSENRVEK <u>D</u> Peptide 3	149
SP22	150	GLILTSRGPGTSFEFALAIVEALSGKDMANQVKAPLVLKD 189	
DJ-1	150	GLILTSRGPGTSFEFALAIVEALNGKEVAAQVKAPLVLKD 189 Peptide 4	

#### FIGURE 2

1	A	gctgtgcagagccgtctggcagggttgacctcctaaagggatattccatctttattaatcattag	65
66	A	tagtgtggtcagagacttagcaccattggtctcccccaacctggtccagacatttcagcagttta	130
131	A B	$toggaacagcaacaacagcaacaaaaccttcaaaatttacaagtctttaagaaatagaa \textbf{ATGgca}\\toggcttcgcgtgggtggaggaggcgcggctgcag \texttt{gtctttaagaaatagaa} \textbf{ATGgca}$	195
1		M A	2
196 16		tccaaaagagctctggtcatcctagccaaaggagcagaggagatggagacagtgattcctgtgga S K R A L V I L A K G A E E M E T V I P V D	
261 38		catcatgcggcgagctgggattaaagtcaccgttgcaggcttggctgggaaggaccccgtgcagt I M R R A G I K <u>V T V A G L A G K D P V Q</u> Peptide 1	
326 59		gtagccgtgatgtagtgatttgtccggataccagtctggaagaagcaaaacacagggaccatac <u>C S R</u> D V V I C P D T S L E E A K T Q G P Y	390 67
391 81		gatgtggttgttcttccaggaggaaatctgggtgcacagaacttatctgagtcggctttggtgaa D V V V L P G G N L G A Q N L S E S A L V K	
456 103		ggagatcctcaaggagcaggagaacaggaagggcctcatagctgccatctgtgcgggtcctacgg <u>E I L K</u> E Q E N R K G L I A A I C A G P T  Peptide 2	520 110
521 124		ccctgctggctcacgaagtaggctttggatgcaaggttacatcgcacccattggctaaggacaaa A L L A H E V G F G C K V <u>T S H P L A K</u> D K Peptide 3	585 132
586 146		atgatgaacggcagtcactacagctactcagagagccgtgtggagaaggacggcctcatcctcac M M N G S H Y S Y S E S R V E K $\overline{\text{D}}$ G L I L T Peptide 4	650 154
651 168		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	715 175
716 189		acatggctaaccaagtgaaggccccgcttgttctcaaagacTAGagagcccaagccctggaccct D M A N Q V K A P L V L K D *	780 189
781		ggacccccaggctgagcaggcattggaagcccactagtgtgtccacagcccagtgaacctggcat	845
846		tggaagcccactagtgtgtccacagcccagtgaacctcaggaactaacgtgtgaagtagcccgct	910
911	,	gctcaggaatctcgccctggctctgtactattctgagccttgctagtagaataaacagttcccca	975
976		agctc*c*tgacggct*	985

Figure 3

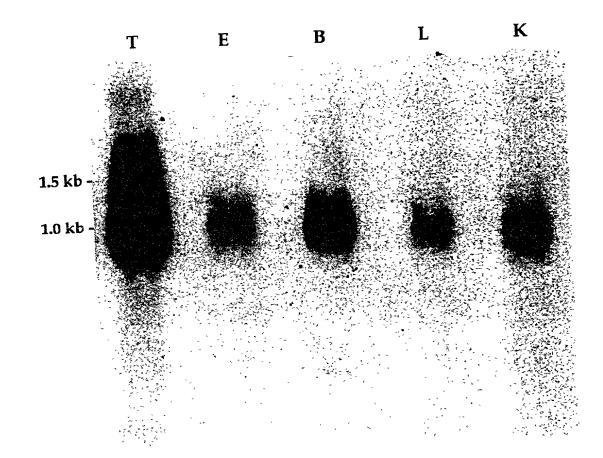


Figure 4

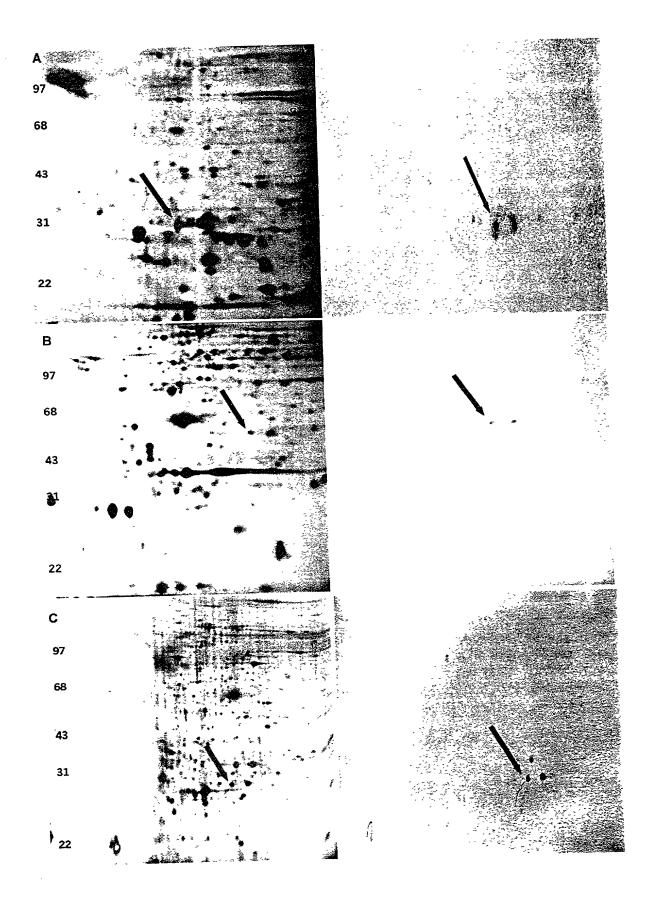
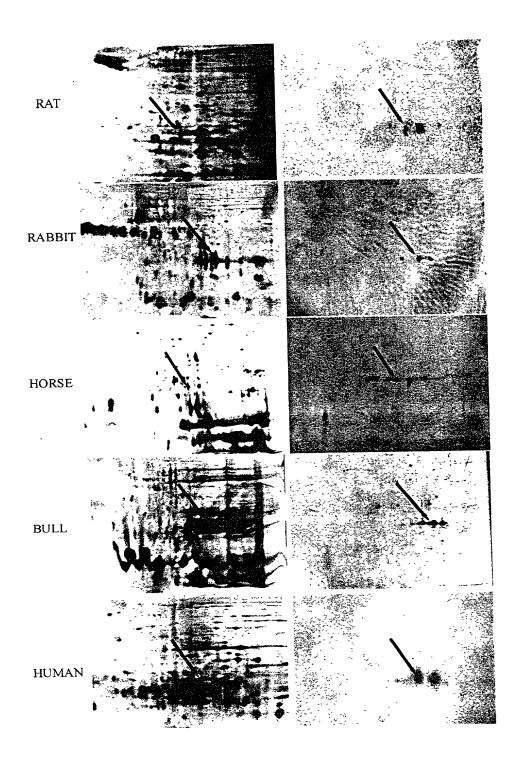
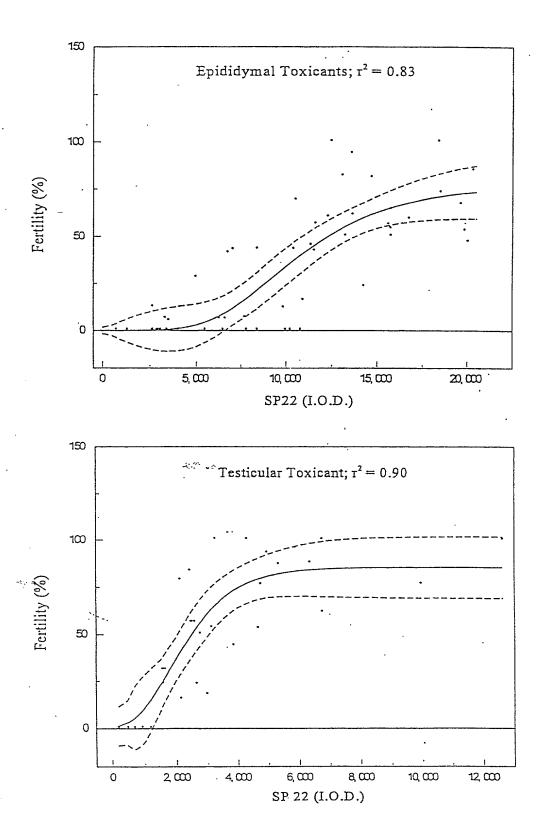
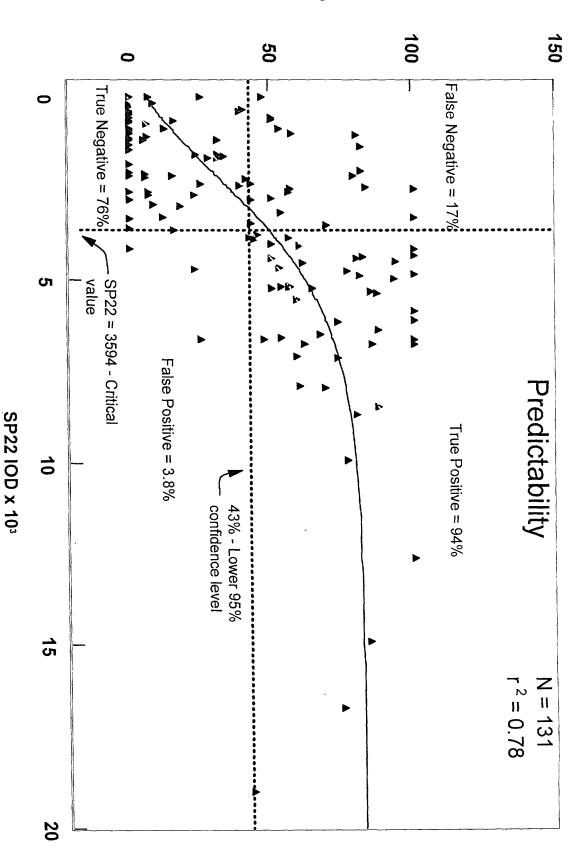


Figure 5





Fertility %



The first was the first only the second of t

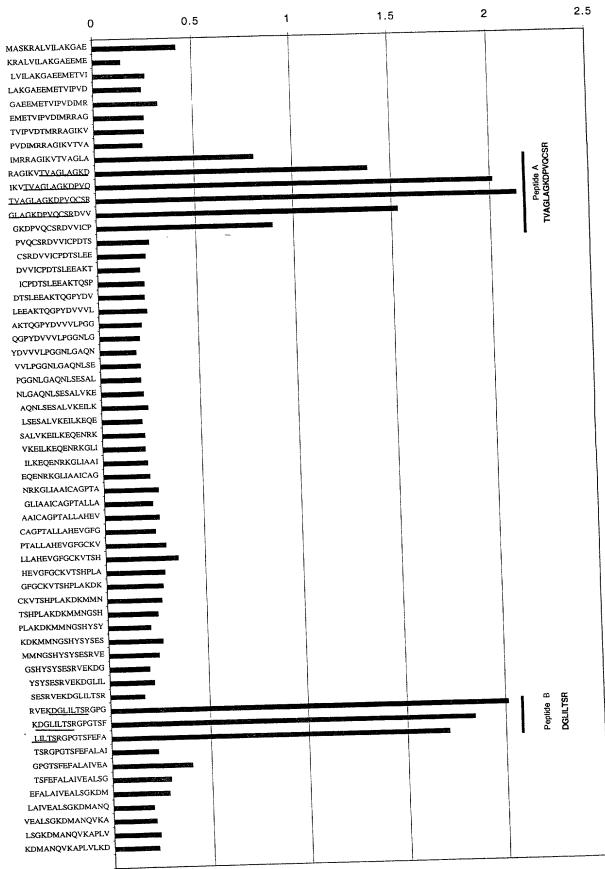


Figure 9

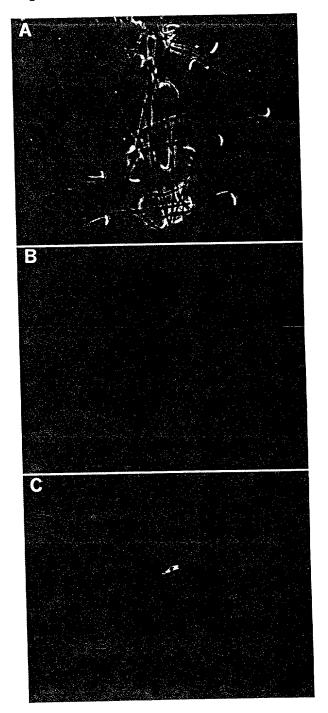
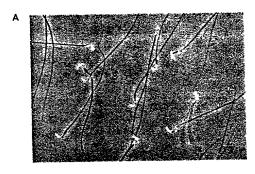
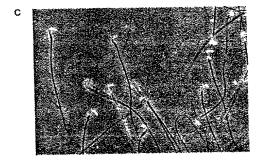
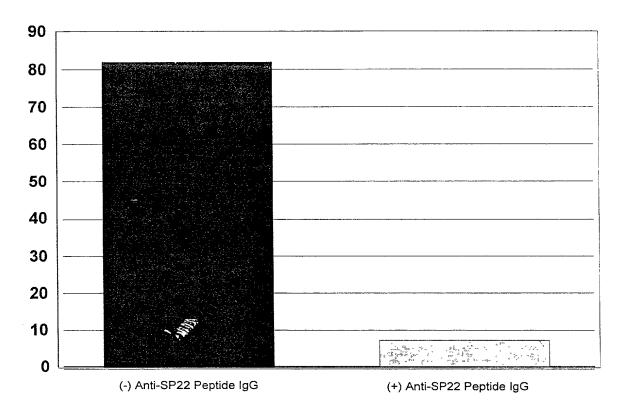


Figure 10

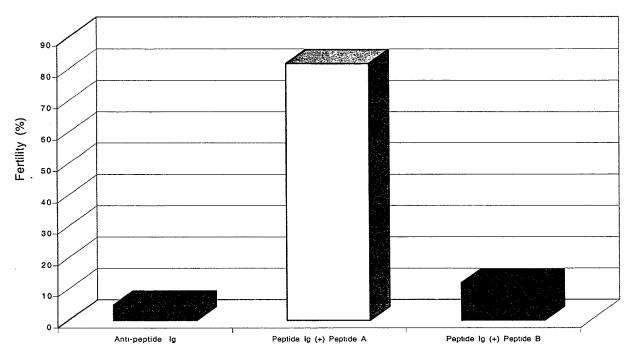








#### In Utero Insemination





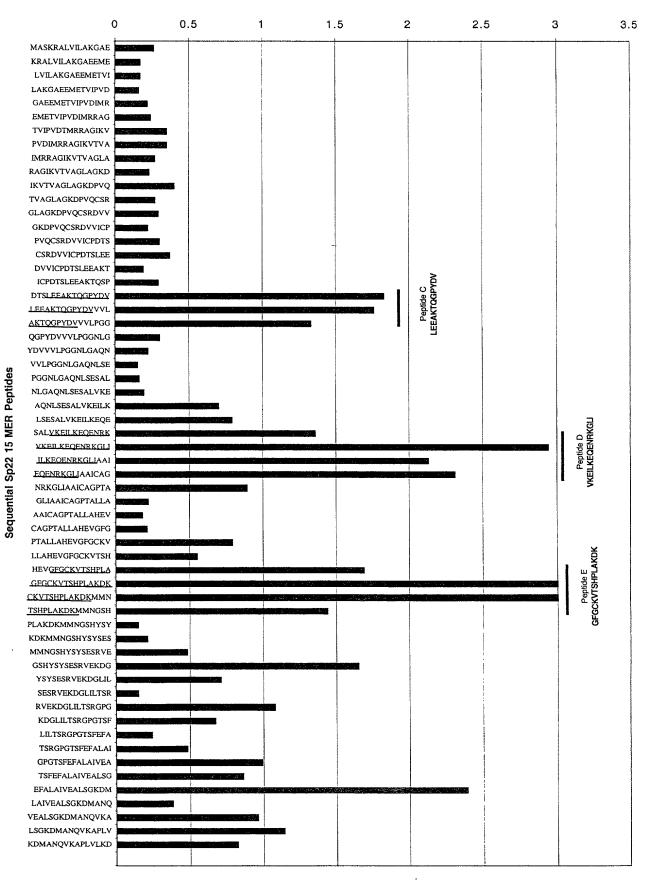
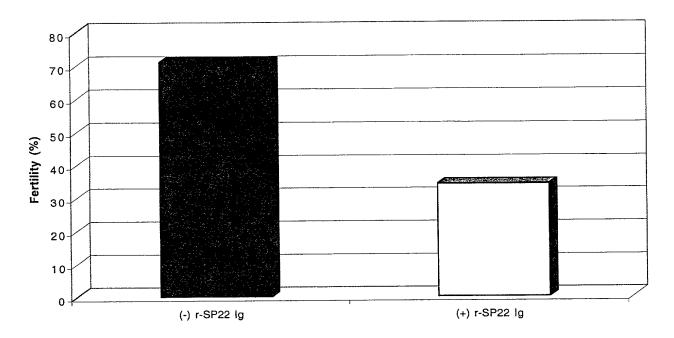
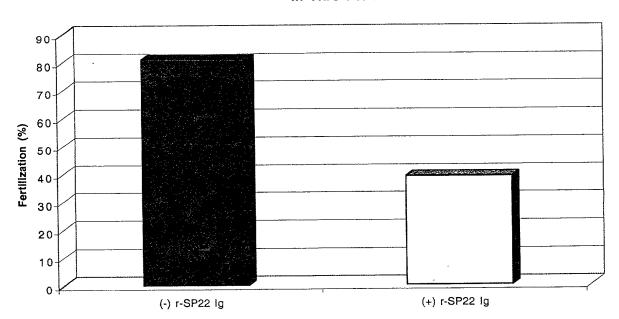


Figure 14

#### In Utero Insemination



#### In Vitro Fertilization



# F16, 15.

	XX	XXX	XX	XXX	XXX	cxxx	xxx:	XXX	(XXX	XXX	(XX	XXX	XXX	XXX	ate	<b>3</b> 500	atc	ca	aaa	ıga	gct	ctg	gto	ai	cc	56
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3	L	I	4	ĸ	G	Ā	E	E	M	E	T	v	I	P	v	D	I	Ī.	M	R	R	А	G		I	44
33	aa	ag!	tca	100	gtt	gca	ggc	ttg	gct	aaa	aag	gac	ccc	gt	gca	gtg	tag	gcc	gt	gat	gta	gto	jat	tt	gt	198
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.99	cc	gg	ata	acc	agt	ctg	gaa	gaa	ıgca	aaa	aca	cag	agg	acc	ata	cga	.tg	tgg	gtt	gtt	ctt	taa	agg	ag	ga	264
57	F		D	T	s	L	E	E	A	K	T	Q	G	P	Y		,	V	V	V	L	P	G		Ġ	88
265	aa	atc	tg	ggt	gca	caç	gaac	etta	atct	gag	jte	ggc	ttt	ggt	gaa	gga	ıga	tco	ctc	aaç	ga	gca	gga	ga	ac	330
89	1	Ŋ	L	G	A	Q	N	L	s	E	s	A	Ţ	Ņ	F		2	I	L	K	E	Q	. E	2	N	110
331	a	gga	ag	ggc	et	ata	agc	tgc	cat	ctgi	tgc	aaa	tcc	tac	gg	ccc	igo	tg	gct	ca	cga	agt	agg	gc	ttt	396
111	L :	R	K	G	L	Ι	A	A	Ι	С	A	G	P	2	. 1	A :	Ľ	L	Α	Н	E	V	. (	3	F	132
3 9 1	7 g	gat	gc	aag	ggt	tac	atc	gca	ccc	att	ggc	taa	.gga	caa	aaa	tga	tga	ac	ggd	cag	tca	icta	ca	gc	tac	462
13:	3	G	С	K	V	T	s	H	P	L	A	. 1		) 1	K I	M	M	И	G	S	F	i y		S	Y	154
46	3 t	ca	gág	gag	ccg	tgt	gga	gaa.	.gga	cgg	cct	cat	cect	cca	cca	gcc	gt	388	icc.	tgg	gac	cag	gct	tc	gag	528
15	5	S	E	S	R	v	E	: K		G	I	, :	E ]	' ئ	T	S	R	G	P	G	; ;	rs	5	F	Ε	176
52	8 t	tt	gc	gct	ggc	cat	tgt	gga	rggc	act	cag	gtg	gca	agg	aca	tgg	ct	aac	cca	agt	ga	agg	ccc	cg	rett	594
17	7	F	A	L	Ą	ı I	. 1	J E	E #	A I	. :	S '	G	K	D	M	A	N	Q	1	J :	K.	A	P	L	198
59	5 9	gtt	ct	caa	aga	acta	agag	gago	ccc	aago	ccc	tgg	acc	ctg	gac	ccc	ca	gg	ctg	ago	cag	gca	ttg	398	aago	660
19	9	V	L	F		,	*																			202
66	51	cca	ict	aga	agas	gac	cac	agc	cca	gtg	aac	cts	gca	ttç	gga	agc	cca	ict	agt	gt	gtc	cac	ag	CC	cag	t 726
72	27	gaa	acc	tca	agg	aac	taa	cgt	gtg	aag	tag	ccc	gct	gc	cca	gga	ato	ctc	gco	ect	ggc	tct	gt	ac	tat	t 792
7	93	ct	gaç	gcc	ttg	cta	gta	gaa	taa	aca	gtt	cco	ccaa	agc	tc											836

### SP22(A)

## FIGURE 16

L	gorgtgcagagccgtctggcagggttgacctcctaaagggatattccatctttattaatcattag 6	S
56	tagtgtggtcagagacttagcaccattggtctcccccaacctggtccagacatttcagcagttta 1	30
131	toggaacagcaacaacaacaaacottoaaaatttacaagtotttaagaaatagaaATGgca 1 N. A. 2	
196 3	tecaaaagagetet.ggteateetageeaaaggageagagagagatggagacagtgatteetgtgga 2 S K R A I, V I L A K G A E E M E T V I P V D 2	
261 25	catgoggoga:sotgggattaaagtoacogttgoaggottggotgggaaggaccoogtgoagt 3 I M R R A G I K V T V A G L A G K D P V Q 4	25
326 46	gtagccgtgatgtilgtgatttgtccggataccagtctggaagaagcaaaaacacagggaccatac 3 C S R D V V I C P D T S L E E A K T Q G P Y 6	390 57
391 68	gatgtggttgttcttccaggaggaaatctgggtgcacagaacttatctgagtcggctttggtgaa 4 D V V L P G G N L G A Q N L S E S A L V K 8	
456 90	ggagatecteaaggageaggagaacaggaagggeeteatagetgeeatetgtgegggteetaegg ! E I L K E Q E N R K G L I A A I C A G P T :	520 110
521 111	ccctgctggctcacgaagtaggctttggatgcaaggttacatcgcacccattggctaaggacaaa A L L A F E V G F G C K V T S H P L A K D K	585 132
586 133		650 154
651 155	cageogtgggcolgggaccagettcgagtttgegetggccattgtggaggcactcagtggcaagg SRGPGTSFEFALAIVEALSCK	715 175
716 176	acatggctaacc. AagtgaaggccccgcttgttctcaaagacTAGagagcccaagccctggaccctD M A N $\cdot$ Q V K A P L V L K D	780 189
781	ggacccccaggctgagcaggcattggaagcccactagtgtgtccacagcccagtgaacctggcat	845
846	tggaagcccactagtgtgtccacagcccagtgaacctcaggaactaacgtgtgaagtagcccgct.	910
911	gctcaggaatctcgccctggctctgtactattctgagccttgctagtagaataaacagttcccca	978